

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

15670-054US1 SD2002-186

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5)

10/528348

INTERNATIONAL APPLICATION NO.

PCT/US03/29213

INTERNATIONAL FILING DATE

18 September 2003

PRIORITY DATE CLAIMED

18 September 2002

TITLE OF INVENTION

STREAM-WISE THERMAL GRADIENT CLOUD CONDENSATION NUCLEI CHAMBER

APPLICANT(S) FOR DO/EO/US

Gregory C. Roberts and Athanasios Nenes

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☐ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 C.F.R. 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 C.F.R. 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information:
Return Receipt Postcard, Express Mail Declaration

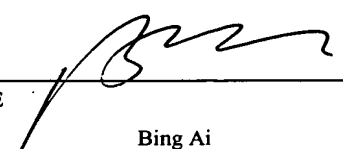
CERTIFICATE OF MAILING BY EXPRESS MAIL

Express Mail Label No.

EV399314765US

Date of Deposit:

March 17, 2005

U.S. APPLICATION NO. (if known, see 37 C.F.R. 1.5) 10/528348		INTERNATIONAL APPLICATION NO. PCT/US03/29213		ATTORNEY'S DOCKET NUMBER 15670-054US1	
The following fees have been submitted				CALCULATIONS PTO USE ONLY	
21. <input checked="" type="checkbox"/> Basic national fee \$300				\$300.00	
22. <input checked="" type="checkbox"/> Examination fee If International preliminary examination report prepared by USPTO and all claims satisfy provisions of PCT Article 33(1)-(4)..... \$100 All other situations..... \$200				\$200.00	
23. <input checked="" type="checkbox"/> Search fee Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority \$100 International Search Report prepared and provided to the Office \$400 All other situations..... \$500				\$100.00	
Total of 21, 22 and 23 =				\$600.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
-100 =	/50=		X \$250	\$0.00	
Surcharge of \$130 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 C.F.R. 1.492(h)).				\$0.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total Claims	27 - 20 =	7	x \$50	\$350.00	
Independent Claims	5 - 3 =	2	x \$200	\$400.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$360	\$0.00
TOTAL OF ABOVE CALCULATIONS =				\$1,350.00	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 C.F.R. 1.27. Fees above are reduced by 1/2.				\$675.00	
SUBTOTAL =				\$675.00	
Processing fee of \$130 for furnishing the English Translation later than 30 months from the earliest claimed priority date (37 C.F.R. 1.492(i))				\$0.00	
TOTAL NATIONAL FEE =				\$675.00	
Fee for recording the enclosed assignment (37 C.F.R. 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 per property				\$0.00	
TOTAL FEES ENCLOSED =				\$675.00	
				Amount to be refunded:	\$0.00
				Amount to be charged:	\$0.00
a. <input checked="" type="checkbox"/> A check in the amount of \$675.00 to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. 06-1050 in the amount of \$0.00 to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-1050. A duplicate copy of this sheet is enclosed. d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
NOTE: Where an appropriate time limit under 37 C.F.R. 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO:					
PTO Customer No: <u>20985</u>			SIGNATURE 		
			NAME <u>Bing Ai</u>		
			43,312		
REGISTRATION NUMBER					